MASTER
NEGATIVE
NO. 95-82413-10

COPYRIGHT STATEMENT

The copyright law of the United States (Title 17, United States Code) governs the making of photocopies or other reproductions of copyrighted materials including foreign works under certain conditions. In addition, the United States extends protection to foreign works by means of various international conventions, bilateral agreements, and proclamations.

Under certain conditions specified in the law, libraries and archives are authorized to furnish a photocopy or other reproduction. One of these specified conditions is that the photocopy or reproduction is not to be "used for any purpose other than private study, scholarship, or research." If a user makes a request for, or later uses, a photocopy or reproduction for purposes in excess of "fair use," that user may be liable for copyright infringement.

The Columbia University Libraries reserve the right to refuse to accept a copying order if, in its judgement, fulfillment of the order would involve violation of the copyright law.

Author:
Aftalion, Albert

Title:
The effect of the war upon the French textile industry

Place:
[n.p.]

Date:
[1923]

95-82413-10
MASTER NEGATIVE #

COLUMBIA UNIVERSITY LIBRARIES
PRESERVATION DIVISION

BIBLIOGRAPHIC MICROFORM TARGET

ORIGINAL MATERIAL AS FILMED - EXISTING BIBLIOGRAPHIC RECORD

BUSINESS
360
Af8

Aftalion, Albert, 1874-
The effect of the war upon the French textile industry ... [1923]
2 p. l., 41-72 p.

"Reprinted ... from 'Effects of the war upon French economic life', a collection of five monographs, edited by Charles Gide (Oxford, 1923)"

RESTRICTIONS ON USE:

TECHNICAL MICROFORM DATA

FILM SIZE: 35mm REDUCTION RATIO: 12x IMAGE PLACEMENT: IA (IIA) IB IIB

DATE FILMED: 3/13/95 INITIALS: DG

TRACKING # : MSH 05311

FILMED BY PRESERVATION RESOURCES, BETHLEHEM, PA.

2.0 mm ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz1234567890

1.5 mm ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz1234567890

PM-MGP 13″x18″
METRIC GENERAL PURPOSE TARGET
PHOTOGRAPHIC

200 mm

150 mm

100 mm

1.0

1.1

1.25

1.4

1.6

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz1234567890

1.0 mm

1.5 mm

2.0 mm

2.5 mm

A5

A4

A3

PRECISION℠ RESOLUTION TARGETS

Century A&P

1303 Geneva Avenue
St. Paul, MN 55119

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890

4.5 mm

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz1234567890

3.5 mm

AFTALION, ALBERT

THE EFFECT OF THE WAR UPON THE FRENCH TEXTILE INDUSTRY.

D360-A48

Columbia University
in the City of New York

THE LIBRARIES

School of Business

Given by
Carnegie Endowment for
International Peace

GAYLAMOUNT
PAMPHLET BINDER
Manufactured by
GAYLORD BROS. Inc.
Syracuse, N. Y.
Stockton, Calif.

of Business Library
Columbia University
APR 2 1948

THE EFFECT OF THE WAR UPON THE FRENCH TEXTILE INDUSTRY

By ALBERT AFTALION

PROFESSOR OF POLITICAL ECONOMY IN THE UNIVERSITY OF LILLE

Reprinted by permission of the Carnegie Endowment for International Peace from 'Effects of the War upon French Economic Life', A collection of Five Monographs, edited by Charles Gide (Oxford, 1923).

PRINTED IN ENGLAND.

THE EFFECT OF THE WAR UPON THE FRENCH TEXTILE INDUSTRY

By ALBERT AFTALION

PROFESSOR OF POLITICAL ECONOMY IN THE UNIVERSITY OF LILLE

COLUMBIA UNIVERSITY LIBRARY

Business
D360
Af8

GIFT
CARNEGIE ENDOWMENT FOR
INTERNATIONAL PEACE
MAR 4 1946

COLUMBIA
UNIVERSITY
LIBRARY

APR 18 1946 PCR

CONTENTS

		PAGE
I.	General Survey	41
II.	The Wool Industry	48
III.	The Linen, Hemp, and Jute Industries	55
IV.	The Cotton Industry	60
V.	The Silk Industry	66
VI.	Summary	71

THE EFFECT OF THE WAR UPON THE FRENCH TEXTILE INDUSTRY

I. General Survey

On the eve of the war the condition of the French textile industry was for the most part satisfactory. It had perfected its equipment and increased its productive capacity. It is true, however, that it still had much progress to make and many improvements to inaugurate. In certain localities and in certain branches it had not had sufficient courage to discard machinery that was more or less worn or antiquated; but in other localities and branches it had an excellent mechanical equipment, as well as a technical and commercial organization which could stand comparison with the best there was in other countries.

Thanks to the development it had thus undergone, as well as to the existence of import duties protecting it against foreign competition, the French textile industry had succeeded in acquiring complete control of the home market. By the very nature of things, to be sure, it had to procure from other countries its entire supply of some of the necessary raw materials, such as cotton and jute, and most of its supply of the others, such as silk, wool, and flax. As regards manufactured textile products, on the other hand, there were only a few special articles which France had to purchase abroad. For her own manufactured textile products, moreover, she had succeeded in creating important outside markets, not only in her own colonies (Algeria, Indo-China, Senegal, Madagascar, &c.), but also in numerous foreign countries. In 1913, the year before the outbreak of the war, the value of her imports of raw textile materials and manufactured textile products combined totalled 2,127,000,000 francs, whereas the value of her corresponding exports totalled 2,135,000,000 francs. Thus France was able to pay with her sales for all of her purchases abroad, and at the

same time have all the raw material she needed for the satisfaction of her own requirements.

This state of affairs was completely disrupted, as we shall see in the course of this study, by the abnormal conditions created by the war. While this applies to a certain extent to all of the textile industries, in this immediate connexion it seems advisable to leave the silk industry out of consideration, since its fate was somewhat different from that of the others. As regards the wool, cotton, linen, and jute industries, however, if we glance at the figures indicating the imports of the corresponding raw materials we cannot fail to see the disastrous influence of the war upon them. The prodigious falling-off of these imports during the war is clearly revealed in the following table :

AMOUNT OF IMPORTS OF RAW TEXTILE MATERIALS INTO FRANCE IN 1913 AND 1918

	Metric Tons	
	1913	*1918*
Wool	286,000	44,000
Cotton	329,000	142,000
Flax	113,000	7,000
Hemp	30,000	16,000
Jute	122,000	9,000
Total	880,000	218,000

Thus from 1913, the year before the outbreak of the war, to 1918, the last year of the war, the imports of raw textile materials other than silk decreased from 880,000 to 218,000 metric tons—a decrease of more than 75 per cent. The significance of this decrease becomes apparent when it is recalled that all of the cotton and jute put through the process of manufacture in French textile mills came from abroad ; as regards wool, on the other hand, French clips produced scarcely a seventh or an eighth of the total quantity worked up in France ; and as regards linen and hemp, finally, the French production of raw material constituted less than a third of the total quantity received by the spinning mills. It is obvious, accordingly, that a falling-off of imports as pronounced as that indicated in the above table must necessarily have exerted a very restrictive influence upon the total production of manufactured textile products in France.

What do we observe as regards the country's foreign trade in manufactured textile products ? The following table indicates the value of the exports thereof before and during the war : [1]

VALUE OF EXPORTS OF MANUFACTURED TEXTILE PRODUCTS FROM FRANCE IN 1913 AND 1918

	Millions of Francs	
	1913	*1918*
Yarn	212	57
Woollen (cloth)	220	40
Cotton (cloth)	385	244
Linen and Hemp (cloth)	27	4
Jute (cloth)	17	31
Total	861	376

Thus the value of the exports of manufactured textile products, whereof France was so proud before the war, decreased from 861,000,000 francs in 1913 to 376,000,000 francs in 1918—a decrease of more than 56 per cent. The above figure for 1918, moreover, takes into account the intervening rise of prices ; and if we made no allowance for this, we would find that the figure corresponding to 1918 would amount to scarcely a sixth of that corresponding to 1913. During the war France lost a number of foreign markets in which she had previously secured a firm foothold ; she ceased to be a factor in the world-market as an exporter of manufactured textile products.

As regards the imports of manufactured textile products, on the other hand, their value underwent a prodigious increase, as shown by the following table :

VALUE OF IMPORTS OF MANUFACTURED TEXTILE PRODUCTS INTO FRANCE IN 1913 AND 1918

	Millions of Francs	
	1913	*1918*
Yarn	64	884
Woollen (cloth)	51	544
Cotton (cloth)	56	648
Linen and Hemp (cloth)	10	101
Jute (cloth)	15	190
Total	196	2,367

[1] In the case of manufactured products we give figures representing value instead of quantity, for the reason that we consider them of greater interest.

Thus the increase was truly prodigious, the difference amounting to more than two billion francs, or almost twelve times the total value of the imports in 1913. It is true that the increase was considerably accentuated, as in the case of the exports, by the intervening rise of prices; apart from this, however, the imports for 1918 were not less than five times as heavy as those for 1913. In short, France ceased to be an exporter of manufactured textile products and became an importer thereof.

The foregoing tables complete and clarify one another, all three of them bearing witness to the disastrous influence of the war upon the French textile industry in general. In 1918 this industry received from abroad only 218,000 tons of raw material, as compared with 880,000 tons in 1913; it consumed for manufacturing purposes only a quarter of its normal pre-war consumption. Before the war France was able to supply not only her own needs, but also a part of the needs of other countries; during the war, however, she ceased to sell her goods abroad and at the same time was obliged to make large foreign purchases for the satisfaction of her own requirements. Whereas in 1913 the value of her exports of manufactured textile products exceeded the value of her corresponding imports by some 665,000,000 francs, in 1918, on the other hand, we find that the latter exceeded the former by more than two billion francs. Thus the entire French balance of trade with respect to manufactured products of the textile industry sustained a loss of some 2,654,000,000 francs between the years 1913 and 1918.

The causes of the greatly decreased production of the French textile industry are not difficult to discover. One of the chief difficulties was that which was common to almost all French industries, namely, the scarcity of workers caused by the mobilization, which in a country of forty million inhabitants took more than seven million persons away from productive occupations. Like the other industries, moreover, the textile industry suffered severely from the disruption of transportation and the shortage of coal.

But the severest blow suffered by the French textile industry was dealt by a more special factor, namely, by the German invasion of the northern and eastern departments, which placed a large proportion of the textile mills either in the hands of the enemy, or else within range of his guns. The *Département du Nord* is the principal centre of the French textile industry; according to the census of 1911, of a total of 805,000 persons employed in textile establishments throughout all France, 178,000, or nearly a quarter, were concentrated in that department. In several of the other invaded departments (Somme, Marne, Aisne, Pas-de-Calais), moreover, the textile industry had likewise acquired some importance. The silk industry was but slightly represented in this part of the country, so that it escaped the disastrous consequences of the invasion almost entirely. As regards the wool industry, however, nearly all of the country's combing machines, three-fourths of its spindles, and two-thirds of its looms were located either in invaded territory or else so close to the firing-line that they had to be shut down. As regards the linen industry, the same applies to almost all of the spindles and to more than half of the looms. As regards the cotton industry, finally, while it was less severely affected than the others, almost a third of the spindles had to be left idle. It is obvious that an enormous decrease in production necessarily resulted from this dispossession of so large a part of the country's mechanical equipment.

Toward the end of the war, moreover, the situation was aggravated by other factors. The total French imports of raw textile materials other than silk before and during the war are indicated by the following table:

AMOUNT OF IMPORTS OF RAW TEXTILE MATERIALS (EXCLUDING SILK) INTO FRANCE IN 1913 AND IN 1915–18

Year	*Metric Tons*
1913	880,000
1915	382,000
1916	457,000
1917	428,000
1918	218,000

These figures show that the French textile manufacturers,

after they had sufficiently recovered from the effects of the first terrible blow, took up production in the uninvaded parts of the country. Having slightly modified their personnel, they made an effort to increase the productivity of the mechanical equipment left at their disposal. The existing machinery was overhauled and in some cases even added to, while some of that which was so close to the firing-line that it could not be used was taken down and remounted elsewhere. Sometimes, indeed, but rather rarely, new mills were erected. All this accounts for the fact that the imports of raw materials in 1916 show a considerable increase with respect to those of the preceding year.

Beginning with 1917, however, a new falling-off in the imports of raw materials is to be observed; and it becomes especially pronounced in the following year. Whereas in 1916 some 457,000 tons of raw materials were imported, or approximately one-half of the quantity corresponding to 1913, in 1918 only 218,000 tons were imported, or approximately one-fourth of the quantity corresponding to 1913. In 1916 the industry suffered from the loss of a large part of its mechanical equipment; in 1918 even the equipment left available was inadequately supplied with raw material. This new decrease in importation, and consequently in production, was a result of the renewal of the German submarine activity in 1917.

When we compare the imports of raw textile materials with the imports of merchandise of all kinds, however, we note that the falling-off between 1916 and 1918 was greater with respect to the former than with respect to the latter. The total tonnage of the loaded ships that entered French ports decreased from twenty-six millions in 1916 to twenty millions in 1918—a falling-off of one-fourth. In the same period the imports of merchandise of all kinds decreased from forty millions to twenty-nine millions of tons—a falling-off of one-third. With respect to textile materials, however, we have seen that the falling-off amounted to one-half. The decrease was thus proportionately greater than that which should have resulted from the reduction of the merchant fleet available.

More than from the reduction of the merchant fleet, however,

the French textile industry suffered from a direct consequence thereof, namely, from the policy of restrictions which the Government adopted with respect to importation and exportation immediately after the renewal of the German submarine activity. France was determined that this should in no way detract from her military power, and accordingly she resolved to direct all her efforts toward the adoption of whatever measures were calculated to ensure victory. To this end, therefore, she deliberately and courageously sacrificed many economic interests which could be looked upon as thoroughly legitimate. It was because she was inspired by this predominant desire for victory, indeed, that in spite of and in the worst phase of the submarine activity she persistently refused to employ her shipbuilding establishments for their normal purpose and continued to use them for the manufacture of guns and ammunition.

These same considerations lay at the foundation of the policy of priorities that was adopted in the matter of maritime transportation. By virtue of this policy preference was given to the transportation of merchandise deemed essential to military success, such as munitions and certain indispensable food products. Wool, cotton, and jute intended to supply the needs of the civil population were consequently conceded but little space in the available ships. In fact, even the textile materials necessary for the manufacture of soldiers' uniforms, blankets, &c., were considered less essential than certain other kinds of war material and were accordingly accepted for transportation only in more or less limited quantities.

The same considerations further led, moreover, to the policy of transporting compact and easily handled manufactured products in preference to heavy and bulky raw materials. To a considerable extent, for instance, more flour and less wheat were transported, more oil and less oleaginous seeds, more paper and less cellulose, more powder and less nitrate, and also more yarn and cloth and less raw cotton and wool. The Government, and especially the Army Supply Service, was led to cut down its foreign purchases of raw materials in favour of manufactured products, notwithstanding the resultant disadvantages with

respect to the economic life of the country. Inasmuch as manufactured textile products required less cargo space than raw textile materials, more cargo space was thus left available for munitions. The burden of the higher cost was willingly borne, and foreign industries were deliberately permitted to thrive at the expense of domestic industries. Everything was held subordinate to that which was considered necessary for the achievement of victory.

Moreover, while the Government departments were economizing cargo space by increasing their purchases of foreign manufactured products, at the same time, in order to save money and prevent the rise of foreign exchange, they restricted the purchase of manufactured products for private accounts by prohibiting their importation.

It is necessary to add, finally, that besides these transportation difficulties there was still another factor that helped to reduce the supply of textile materials, namely, the ever-increasing restrictions placed by certain countries upon their exportation. This applies, for instance, to Australia, which reserved its wool production for England alone, having sold out its entire supply to her for a number of years in advance.

We have set forth, accordingly, the chief causes of the paralysation of the French textile industry during the war—the causes which made it necessary for France to rely upon foreign industries to supply her demand, both civil and military, for manufactured textile products. Following this general survey, we may now pass on to a brief consideration of each of the various branches of the textile industry.

II. The Wool Industry

Of all the French textile industries the wool and linen industries were the most severely affected by the war, due to the fact that they were more concentrated than the others in the regions invaded by the enemy. For the country in general, however, the paralysation of the wool industry had the most serious consequences on account of the very important position

which it had occupied in the economic life of the people. It is to this industry, accordingly, that we will turn our attention first.

Before the war the French wool industry had attained a high degree of technical development and at the same time had built up a splendid commercial organization. It showed a tendency to become concentrated in the region of Roubaix-Tourcoing, where it was conducted in large mills provided with excellent mechanical equipment and managed by men possessed of a genuine spirit of enterprise. Division of labour was correlated with frequent examples of integration, the same company in many cases importing its raw wool directly from the country of production, operating its own combing, spinning, and weaving mills, and even maintaining its own retail stores. French manufacturers of woollen yarn and cloth had not only succeeded in acquiring complete control of the home market, but had also developed a heavy export trade, shipping large quantities of combed wool, yarn, and cloth to England, Germany, Belgium, Italy, the United States, and other countries.

The war dealt the French wool industry a severe blow, permitting it to be continued only on a terribly reduced scale. The annual French clip, which before the war had amounted to some 35,000 tons, was greatly reduced in consequence of the loss of a large part of the country's ovine stock. In particular, however, it is the falling-off in the imports of foreign wool that accounts for the full gravity of the decreased production. The following table shows the French imports of foreign wool in bulk before and during the war:

Amount of Imports of Raw Wool into France in 1913 and in 1915–18

Year	*Metric Tons*
1913	269,000
1915	65,000
1916	78,000
1917	60,000
1918	40,000

Thus in 1916 the imports of foreign wool amounted to less

than a third of what they were in 1913. Beginning with 1917, moreover, we note a further falling-off; and in 1918 the total dwindles down to 40,000 tons, or a little more than a seventh of the pre-war figure.

Along with this decrease in the imports of raw material, moreover, there was an almost complete stoppage of the exports of woollen yarn and cloth and at the same time an astonishing increase in the imports thereof. France, no longer able to manufacture, ceased to sell to foreign countries, and was obliged to purchase in considerable volume from them.

Moreover, even before it is a question of yarn and cloth, so to speak, this same shift in trade is to be observed with respect to the combing industry—which in the other textile industries is more or less a part of the spinning industry, but in the wool industry constitutes a separate branch of special interest and importance. Before the war the annual exports of combed wool amounted to some 26,000 tons, representing a value of some 140,000,000 francs. During the war, however, this export trade ceased, one may say, entirely; according to French custom-house statistics, the exports of combed wool in the years 1915, 1916, 1917, and 1918 amounted to only 107, 228, 253, and 269 tons respectively. On the other hand, the imports of combed wool, which before the war had amounted to almost nothing, during the war acquired considerable importance; instead of the 100–200 tons received before the war, in 1916 the receipts amounted to 4,067 tons valued at 49,000,000 francs and in 1918 to 1,754 tons valued at 35,000,000 francs.

Thus wool combing was practically a dead industry in France during the war.

As regards woollen yarn and cloth, the same or similar phenomena are to be observed. In the first place, a falling-off in the exports: whereas in 1913 the value of the exports of woollen yarn was 102,000,000 francs, in 1918 it was not more than 1,000,000 francs; and whereas in 1913 the value of the exports of woollen cloth was 220,000,000 francs, in 1918 it was not more than 40,000,000 francs.

The imports of woollen yarn and cloth, on the other hand,

underwent an astonishing increase, as shown by the following table:

VALUE OF IMPORTS OF WOOLLEN YARN AND CLOTH INTO FRANCE IN 1913 AND IN 1915-18

	Millions of Francs		
Year	*Yarn*	*Cloth*	*Total*
1913	6	51	57
1915	63	500	563
1916	135	811	946
1917	182	609	791
1918	229	544	773

Thus whereas in 1913 the value of the imports of woollen yarn and cloth was only 57,000,000 francs, in 1916 it was no less than 946,000,000 francs—an increase of more than 1,500 per cent. It was in 1916, however, that these imports reached their high-water mark. In that year the value of the imports of woollen yarn and cloth underwent an increase of some 889,000,000 francs with respect to that of the corresponding imports in 1913; and if we add to this figure that corresponding to the imports of combed wool, we find that the total increase amounted to no less than 938,000,000 francs. On the other hand, the value of the exports of woollen yarn and cloth, as well as of combed wool, underwent a decrease of 434,000,000 francs. For the entire balance of trade, accordingly, the total loss amounted to the enormous sum of 1,372,000,000, or almost a billion and a half francs.

After 1916, despite the fact that the imports of raw material continued to decrease, the imports of manufactured products likewise decreased. The Government, to be sure, continued to purchase considerable quantities of manufactured products abroad; but purchases of manufactured products for private accounts were restricted by import prohibitions established in France and export prohibitions established in other countries. As regards the imports of English cloths, in particular, the Anglo-French agreement of August 24, 1917, provided that they were to be reduced to a limited proportion equal to approximately one-third of the quantity imported in 1916. In reality, however, this proportion was considerably exceeded,

especially by reason of the direct and indirect purchases made for the account of the Government to supply the needs of the army. The decrease of the imports in 1918 as compared with 1916 was considerably less in the case of yarn and cloth than it was in the case of raw material.

The principal cause of this loss sustained by the French wool industry is already known; it was due to the fact that this industry was largely concentrated in the regions invaded by the enemy. According to the census of 1906 (the last offering information regarding the matter), of 171,000 persons actively employed in the wool industry throughout France more than one-half (85,619) were in the *Département du Nord* alone; and if we add to this the number of persons so employed in the other departments which were partially or wholly invaded, we find that the total is more than 116,000, or approximately two-thirds of the entire personnel.

The wool-combing industry was entirely confined to the *Département du Nord* and the *Département de la Marne*. Of 10,600 persons employed in this branch of the industry in 1906 no less than 7,200 were in the former department, which fell entirely into the hands of the enemy, and 1,400 were in the latter department, which was constantly within range of his guns. Thus wool combing, which had come to be one of the country's most flourishing industries, was practically wiped out during the war.

As regards the wool spinning industry, of 30,300 persons actively employed in it, according to the same census of 1906, some 20,500, or approximately two-thirds, were in the invaded departments. In the *Département du Nord* alone was concentrated one-half of the entire French spinning personnel, that is, 15,900 persons; and in particular three-fourths of the entire personnel engaged in the spinning of combed wool were concentrated there, that is, 12,000 out of 16,600 persons.

Moreover, the disastrous effects of the enemy invasion upon the wool spinning industry is further shown by the figures indicating the loss of mechanical equipment. Of approximately 2,000,000 combed wool spindles operating in France some 1,750,000, or seven-eighths, were in mills located in territory

which was either occupied by enemy troops or menaced by enemy gunfire; of 369,000 twisting spindles, moreover, 315,000 were in the same regions; while of 715,000 carded wool spindles, finally, 250,000 had to be abandoned. Altogether, therefore, the loss amounted to 2,315,000 out of 3,084,000 spindles; that is to say, during the war the French spinning-mills lost 75 per cent. of the mechanical equipment at their disposal before the war.

As regards the wool weaving industry, the situation was but slightly better. According to the same census of 1906, of 121,000 persons engaged in weaving wool throughout France, 61,000, or approximately one-half, were in the *Département du Nord*, and 82,000, or approximately two-thirds, were in all the invaded departments combined. As regards the mechanical equipment, of 55,000 looms throughout the country approximately 25,000 were in the region of Roubaix-Tourcoing, 4,000 in the region of Fourmies, and 6,500 in the region of Rheims; and there were also some in the *Département des Ardennes* and the *Département de la Somme*. Thus two-thirds of the country's looms were located in regions which were either actually invaded or constantly menaced by the enemy.

In general, accordingly, it may be said that during the war the French wool industry lost all of its combing machines, three-fourths of its spindles, and two-thirds of its looms.

An effort was made, nevertheless, to augment the means of production in the uninvaded parts of the country. It was not easy to create new plants, however, owing to the difficulty of procuring the necessary mechanical equipment. Before the war the machinery used by the French wool industry came from three centres of production—from the region of Roubaix-Tourcoing, from Alsace, and from England. Inasmuch as the first two sources were cut off, however, the only one left was the third, whence the delays in delivery were truly terrible. Where, moreover, was it possible to find the necessary operatives for new plants, when those already in existence were desperately short of help? As a matter of fact, the number of entirely new plants created was very small; one may cite a combing-mill

with some twenty combers, the installation of some 35,000 new carded wool spindles and a number of carded wool looms. Besides this, the machinery of certain mills located in and around Rheims was taken down and remounted in regions where it could be operated in security from the enemy gunfire —as at Elbeuf, Romorantin, Roanne, &c.

Towards the end of the war, however, these efforts put forth to the end of partially rehabilitating the French wool industry were rendered futile by the cutting off of the supplies of raw material, which made it impossible for the French textile manufacturers to use to their full extent even the greatly reduced means of production left at their disposal. As indicated above, the imports of wool, which decreased from 269,000 tons in 1913 to 78,000 tons in 1916, dwindled down to only 40,000 tons in 1918. The imports of wool from Australia, which was one of the most important sources of French supply, fell off in consequence of the renewal of the German submarine activity and the French shipping policy adopted in consequence thereof. French vessels were not authorized to make voyages as long as that to Australia for the purpose of procuring wool, so that the Government departments resigned themselves to the purchase of manufactured products in less distant countries, especially England, thereby economizing time and cargo space. The small supply of wool that continued to come from Australia was limited to the amount necessary for war purposes, and was brought to France largely by English vessels navigating in conformity with agreements concluded between the French Army Supply Service and the British Ministerial Departments. But it was not long before even these consignments were carried only as far as Port Said, where they were transhipped to French vessels; and later even this became difficult, so that considerable quantities of wool purchased in Australia were held up there indefinitely. According to the custom-house statistics for 1918, the imports of Australian wool in that year amounted to only 4,000 tons, or less than 5 per cent. of the annual pre-war imports. Moreover, the agreement whereby Australia reserved her entire wool production for England from November 1916

to the end of the year following the declaration of peace, made it necessary for French manufacturers to buy Australian wool in England, which, however, allowed them to have only very small quantities—7,000 tons in 1918, or only 25 per cent. of the amount ordinarily received from England before the war.

As regards the imports of wool from the Argentine Republic and Uruguay, the second great source of French supply, the shipping difficulties were not so great because the distance was shorter. But in this case difficulties of a financial nature were encountered, the unfavourable condition of French credits and French exchange in the Argentine Republic having led the more important business houses in that country, if not to reject, at least carefully to consider the orders for wool placed by the French Government. The credit of 100,000,000 *pesos* which the Government of the Argentine Republic agreed to open for us was reserved by preference for purchases of grain and linseed for military uses. The available funds left over for the purchase of wool were consequently insufficient, so that the imports in 1918 amounted to only 17,000 tons, or approximately 20 per cent. of the annual pre-war imports.

It will be seen, accordingly, that the French wool industry could not supply even the needs of the army during the war, making it necessary for the Army Supply Service to resort to the purchase of manufactured products abroad. This enables us to understand why it was that, whereas before the war the value of the exports exceeded that of the imports by some 400,000,000 francs, in 1916 and 1918 the value of the imports exceeded that of the exports by 966,000,000 and 768,000,000 francs respectively. And even so, moreover, the demand of the civil population for woollen clothing and furnishings was not nearly as well supplied as it was before the war.

III. The Linen, Hemp, and Jute Industries

The linen industry suffered no less than the wool industry from the disruptive influence of the war. Although of less importance than the latter, to be sure, it occupied a by no

means insignificant position among the various French textile industries. Protected by import duties, it had not only succeeded in eliminating foreign manufactured products from the home market, but at the same time had developed a considerable export trade, with the result that before the war it was shipping ever-increasing quantities of yarn and cloth to various foreign countries—even to England, the great competitor of France.

Like the wool industry, however, the linen industry was concentrated chiefly in the *Département du Nord*, so that during the war it was destined to suffer virtually the same fate.

The flax-spinning industry was confined almost entirely to the *Département du Nord*. According to the census of 1906, of 21,400 persons actively employed in spinning flax throughout the country no less than 19,500 were in that department, while of 572,000 flax spindles 510,000 were located there. The spinning mills were nearly all situated either in regions actually occupied by the Germans or else in regions constantly exposed to their gunfire—as, for instance, the region of Armentières, which for a long time escaped occupation, to be sure, but was completely devastated by bombardments.

The linen-weaving industry was more than half confined to the *Département du Nord*. According to the same census of 1906, of 66,000 persons actively employed in weaving linen cloth 34,000 were in that department; of 17,500 power-looms, moreover, approximately 10,000 were located there, while of 20,000 hand-looms 12,000 were located there. Thus the only weaving establishments that were destined to remain in the possession of France during the war were those in the west and in the *Département des Vosges*—which means that the country was deprived of more than three-fifths of the mechanical equipment at its disposal before the war.

Even the mills located in the uninvaded sections, moreover, were destined to be inadequately supplied with raw material. The region of the Lys, which is the agricultural centre of the production of French and Belgian flax, fell entirely into the hands of the Germans. Italian hemp, on the other hand, was

received only in limited quantities, chiefly because of the restrictions placed upon its exportation by the Italian Government. Of special importance, however, was the cutting-off of the supply of flax previously received from Russia, the greatest flax-producing country in the world; but since Russian flax could be forwarded to France only via Archangel, the submarine activity necessarily had the same disastrous consequences with respect to it as it had with respect to the other raw textile materials. Then, too, there were the difficulties created by the Russian revolution.

Under the influence of all these factors the French linen and hemp industries came to an almost complete standstill during the war. Instead of exporting manufactured products, accordingly, it became necessary to import them—especially for military purposes, for the Aeronautical Service in particular.

The following table shows the imports of flax and hemp before and during the war:

AMOUNT OF IMPORTS OF FLAX AND HEMP INTO FRANCE IN 1913 AND IN 1915–18

	Metric Tons	
Year	*Flax*	*Hemp*
1913	113,000	30,000
1915	3,000	8,000
1916	15,000	24,000
1917	8,000	14,000
1918	7,000	6,000

Thus the imports of flax and hemp combined decreased from 143,000 tons in 1913 to 39,000 tons in 1916, and again to only 13,000 tons in 1918, so that in the last year of the war they amounted to approximately one-eleventh of what they were in the year before the war. At the same time, moreover, the French agricultural production declined on account of the shortage of labour, as well as of seed, and the lack of facilities for the processes of retting and scutching.

Deprived of its means of production and of its supply of raw material, accordingly, the French linen industry could produce only limited quantities of merchandise. It could no longer be a question, so to speak, of shipping linen yarn and cloth to

foreign countries, so that whereas in 1913 the value of the exports thereof amounted to some 73,000,000 francs, in 1918 it amounted to only 7,000,000 francs. In order to supply her domestic needs, on the other hand, it was necessary for France to make large foreign purchases, as shown by the following table:

VALUE OF IMPORTS OF LINEN YARN AND CLOTH INTO FRANCE IN 1913 AND 1915-18

Year	*Millions of Francs*	
	Yarn	*Cloth*
1913	7	10
1915	15	13
1916	42	23
1917	121	55
1918	42	101

In the case of the linen industry the weaving mills suffered much less than the spinning mills from the effects of the German invasion, so that it is in the imports of yarn that the most pronounced increase is to be observed, namely, from 7,000,000 francs in 1913 to no less than 121,000,000 francs in 1917. In the same period, however, the value of the imports of linen cloth increased from 10,000,000 francs to 55,000,000 francs.

In 1918, when France received but little flax from Russia on account of the chaotic conditions prevailing in that country, she also received less linen yarn from abroad, with the result that the French weaving mills, which had been forced by the lack of domestic yarn to make use of foreign yarn, found themselves deprived of the latter as well. England, in particular, in order to keep her own weaving mills supplied, greatly limited her sales of linen yarn; at the same time, however, she continued to sell linen cloth, having actually sold France considerably more in 1918 than in 1917—47,000,000 and 21,000,000 francs worth respectively. In general, the value of the imports of linen cloth of all origins increased to 101,000,000 francs.

If we compare the foreign trade of 1917 with that of 1913, accordingly, we find that, whereas in 1913 the value of the exports of manufactured products of the linen industry exceeded that of the imports by some 56,000,000 francs, in 1917

the value of the imports exceeded that of the exports by some 163,000,000 francs, the difference representing a loss of some 219,000,000 francs with respect to the entire French balance of trade. In 1918 the loss was not quite so great, but was nevertheless appreciable.

Notwithstanding this decrease of exports and increase of imports, it may be said that the consumption of linen goods by the French civil population practically ceased during the war, due to the fact that the people, instead of buying new things, got all the use they possibly could out of what they already had. And this also signifies a loss which, could it be evaluated, would be found to represent a considerable sum.

With the linen industry, and especially the hemp industry, is to be classed the jute industry, which is closely allied with them technologically.

The jute industry suffered much less than the linen industry from the effects of the German invasion. In this case, moreover, the imports of raw material underwent a much less pronounced decrease in the early part of the war, as shown by the following table:

AMOUNT OF IMPORTS OF JUTE INTO FRANCE IN 1913 AND IN 1915-18

Year	*Metric tons*
1913	122,000
1915	75,000
1916	78,000
1917	67,000
1918	9,000

Thus in 1916 the imports of raw material amounted to approximately two-thirds of what they were in 1913; but here again a new decrease is to be observed in 1917, and another much greater one in 1918, due again to the renewal of the German submarine activity and the French shipping policy adopted in consequence thereof. France chose to employ her ships for other purposes than for the conveyance of cumbersome cargoes of jute from British India. The Government, which

had great need of jute bags for military purposes, decided to import the manufactured product, instead of the raw material. The following table shows the value of the imports of jute cloth before and during the war:

VALUE OF IMPORTS OF JUTE CLOTH INTO FRANCE IN 1913 AND 1915-18

Year	*Millions of francs* *Value*
1913	15
1915	49
1916	43
1917	54
1918	90

Thus the value of the imports of jute cloth in 1918 was six times as high as it was in 1913. On the other hand, the value of the exports of jute cloth increased from 17,000,000 francs in 1913 to 31,000,000 francs in 1918.

IV. THE COTTON INDUSTRY

Having considered the wool and linen industries, which were the two textile industries most seriously affected by the German occupation of the northern and eastern departments of France, we may pass along to a consideration of the cotton industry, upon which the war exerted a considerably less disastrous influence.

Like the wool industry, the cotton industry had acquired complete control of the home market before the war. There is little doubt, however, that this was in large measure due to the existence of import duties protecting it against foreign competition. Like the wool industry, moreover, it exported a considerable part of its output; but unlike the wool industry, it consigned three-fourths of its exports to French colonies, where they were still under the protection of French import duties, and only one-fourth to foreign countries.

The war was destined to place in the hands of the Germans portions of the cotton industry which, though not as large as

in the case of the wool and linen industries, were by no means insignificant.

As regards cotton spinning, of a total of 47,700 persons so employed throughout France, according to the census of 1906, some 18,600 were in the *Département du Nord*, which was one of the three great centres of the French cotton-spinning industry, the other two being the *Département des Vosges* and *Normandie*. Of a total of 7,500,000 spindles throughout France more than 2,000,000 were in the north.

As regards cotton weaving, the census of 1906 gives only 3,200 persons so employed in the north out of a toal of 118,000 throughout France. On the eve of the war the number of power-looms throughout the country was 140,000 and only 13,000 of them were in the north; but it is necessary to take into account the fact that these figures refer to textile mills manufacturing cotton cloth only and not to those manufacturing mixed weaves. In reality, however, cotton yarn was used by the weaving mills of the north to an appreciable extent not indicated in the above figures—especially at Armentières and Lille for the manufacture of cotton-linen mixtures, and in the Roubaix-Tourcoing region for the manufacture of cotton-wool mixtures.

The manufacture of cotton yarn and cloth in the north of France came to a complete standstill during the war, while at the same time the country lost the output of a certain number of mills in the east which fell into the hands of the enemy or had to be shut down by reason of their proximity to the firing-line.

In consequence of this curtailment of the means of production it was to be expected that there would be a decrease in the imports of raw material and in the exports of manufactured products, as well as an increase in the imports of manufactured products. It was also to be expected, however, that these changes in the case of the cotton industry would be much less pronounced than they were in the case of the wool and linen industries, since the former fell to a less extent into the hands of the enemy.

The following table shows the imports of raw cotton and cotton waste before and during the war:

AMOUNT OF IMPORTS OF RAW COTTON AND COTTON WASTE INTO FRANCE IN 1913 AND IN 1915-18

Year	*Metric tons*
1913	329,000
1915	228,000
1916	255,000
1917	273,000
1918	142,000

In the first three years of the war the falling-off, although appreciable, was not enormous. In 1917 the imports show a decrease of only 56,000 tons with respect to those in 1913, that is, a decrease of approximately one-sixth. In 1918, however, there is to be observed a new and very pronounced decrease, due, as in the case of the other textile industries, to the renewal of the German submarine activity and the French shipping policy adopted in consequence thereof. The French public authorities were of the opinion that for a nation at war and intent upon victory the available merchant ships could be used for more urgent purposes than for the transportation of raw cotton from abroad. In order to leave more cargo space for war materials, accordingly, and despite the resulting disadvantages for domestic industry, they decided to restrict the importation of raw cotton and to buy foreign manufactured products, which were less cumbersome and could be obtained from less distant countries, notably England. But if this shipping policy thus led to an increase in the purchases of foreign manufactured products intended to supply the needs of the army, the commercial and financial policy adopted with reference to the requirements of the civil population was calculated to diminish the supply; for the foreign purchase of cotton cloth for private accounts was prohibited.

However that may be, if not in 1918, at least in the preceding years of the war, the imports of raw cotton fell off very little as compared with those of raw wool and flax. In view of this

fact one would expect a correspondingly small decrease in the exports of cotton yarn and cloth, as well as a correspondingly small increase in the imports thereof. We shall see, however, that such was not the case; that well before 1918, on the contrary, these two movements showed a very pronounced tendency to become accentuated.

In the first place, as a matter of fact, the above figures representing the imports of raw cotton are deceptive for the reason that they comprise both raw cotton (cotton wool) and cotton waste, the custom-house statistics making no distinction between the two. During the war, however, the imports of cotton waste increased considerably for the reason that the Ammunition Service used large quantities of it in the manufacture of gun-cotton; thus the imports of raw cotton underwent a much more pronounced decrease than is indicated in the above table. The quantity of raw cotton received by the spinning mills, and consequently the production of the French cotton industry, decreased markedly in the first years of the war, due not only to the enemy invasion, but also to the scarcity of operatives, to the ever-increasing internal and external transportation difficulties, to the shortage of coal supplies, &c.

In the second place, moreover, it is necessary to take into account a considerably increased demand for cotton cloth during the war. In addition to the normal demand, there was the enormous requirement of the army, which consumed a very large quantity of cotton goods. With respect to both the army and the civil population, furthermore, the great scarcity and high cost of woollen and linen goods caused the law of substitution to work in the manner in which it ordinarily works with respect to textile products; that is, cotton goods were largely used in place of woollen and linen goods. In the case of manufactured products of the cotton industry, therefore, this accounts for the double phenomenon of a pronounced decrease of exports and an enormous increase of imports.

The following table indicates the value of the exports of cotton yarn and cloth before and during the war :

VALUE OF EXPORTS OF COTTON YARN AND CLOTH FROM FRANCE IN 1913 AND IN 1915–18

Millions of francs

Year	*Yarn*	*Cloth*	*Total*
1913	24	385	409
1915	5	185	190
1916	11	302	313
1917	13	275	288
1918	10	244	254

Thus even before the year 1918 the decrease in the exports of manufactured products was appreciable. In 1917 it amounted to 121,000,000 francs with respect to 1913 ; and in 1918, owing to the shortage of the supply of raw cotton, it was still greater, amounting to 155,000,000 francs with respect to 1913. The French colonies, deprived of French cotton cloth, had either to procure what they needed from foreign countries or else to restrict their consumption.

As regards the imports of manufactured cotton products, the movement was as follows :

VALUE OF IMPORTS OF COTTON YARN AND CLOTH INTO FRANCE IN 1913 AND IN 1915–18

Millions of francs

Year	*Yarn*	*Cloth*	*Total*
1913	33	56	89
1915	129	383	512
1916	230	366	596
1917	283	324	607
1918	486	648	1,134

Thus well before 1918 the imports of cotton yarn and cloth had increased prodigiously. In 1917 they already amounted to more than six times what they amounted to before the war ; and with respect to 1917, if we reckon the increase of imports with the decrease of exports, we find that the total loss for the entire balance of trade was about 639,000,000 francs.

In 1918 there was a new increase in the imports of cotton yarn and cloth, notwithstanding the fact that the foreign purchase of cloth for private accounts was restricted by the

import prohibitions established in April 1917. English cloths, in particular, which constituted two-thirds of the total imports, were to be imported into France, according to the above-mentioned Anglo-French agreement of August 24, 1917, in a proportion equal to only one-half of the imports corresponding to the years 1914, 1915, and 1916. This was a very small proportion, being equivalent to only two-fifths of the imports of English cotton cloths in 1916. If the imports of English cotton cloths had been kept within the proportion fixed, they would have amounted to only 9,600 tons ; as a matter of fact, however, they totalled three times that amount, or 29,400 tons. The excess over and above the specified proportion was due chiefly to the direct and indirect purchases made for the account of the Government. As stated above, the public authorities of France, in order to economize cargo space in the vessels available and thereby leave room for the transportation of war materials, in 1918 adopted the policy of purchasing foreign manufactured products instead of foreign raw materials, and in pursuit of this policy they bought English cotton cloth instead of American raw cotton.

Moreover, French imports of cotton cloth manufactured in the United States underwent a considerable increase, especially because of the purchases made by the Government ; whereas in 1917 these imports amounted to only 800 tons, in 1918 they totalled nearly five times that amount (3,800 tons).

In consequence of this self-sacrificing shipping policy which France resolved to pursue to the end of strengthening her military power to the utmost, the French cotton industry was inadequately supplied with raw material ; and at the same time the country ran heavily into debt as a result of its increased purchases of foreign manufactured products. Thus in addition to the losses France sustained in direct consequence of the enemy invasion, there were the losses which she voluntarily and courageously accepted to the end of ensuring the triumph of the common allied cause. If we compare the foreign trade in manufactured cotton products of 1918 with that of 1913, taking into account the decrease of exports and the increase

of imports, we find that the total loss for the French balance of trade was more than a billion (1,200,000,000) francs.

In the case of the wool industry we have seen that the loss was more than a billion francs in 1918 and almost a billion and a half francs in 1916. This affords an index to the extent of the disaster suffered by the French textile industry during the war. And in the case of cotton, as in the case of wool and linen, it is necessary to remark that the demand of the civil population, despite the large purchases made abroad and the great decrease in the exports to foreign countries, was very inadequately supplied.

V. The Silk Industry

The history of the silk industry in France during the war is quite different from that of the other textile industries for various reasons, chief among which is the fact that it escaped, for the most part, the disastrous consequences of the enemy invasion. It did not, to be sure, escape them entirely. It was deprived of some 60,000 schappe spindles in the occupied regions, and it also lost the production of the looms in the *Départements de la Somme, de l'Aisne, du Nord*, and *de la Marne* —a production by no means insignificant. Proportionately, however, these losses were not nearly as great as those which were sustained, as we have seen, by the wool, the linen, and even the cotton industry.

The silk industry was the only one of the French textile industries which was able to maintain a heavy export trade throughout the war. Before the war, despite the fact that foreign competition had somewhat interfered with the development of French spinning and throwing mills, and despite the fact that foreign markets for French fabrics were becoming harder to create by reason of the efforts which numerous other countries were putting forth to increase their production (especially the United States, where a truly remarkable progress had been made along this line), the French silk industry had succeeded in maintaining its important position in the world. Thanks to the skill of its directors and workers, as also to its

good taste, and especially to its extreme adaptability, which permitted a continual adjustment of its output to the ever-changing demands of its clientele, it was able constantly to increase the great variety of its products. During the war it continued to exhibit the same traditional qualities for which it was famous, and at the same time managed to adapt itself with the same facility to the greatly altered commercial and economic conditions.

This does not mean, however, that the silk industry escaped the blows of the war entirely. On the contrary, it was brought face to face with difficulties of all kinds; and while it managed to surmount many of them, to be sure, at the same time it is not to be denied that its productive activity was considerably lessened.

This appears from the following table showing the movement of the imports of raw material, that is, raw silk and floss-silk, before and during the war:

Amount of Imports of Raw Silk and Floss-Silk into France in 1913 and in 1915–18

Year	*Metric quintals*[1]
1913	198,000
1915	93,000
1916	132,000
1917	124,000
1918	145,000

In the first part of the war the decrease was very pronounced, due to the fact that transportation from Japan and China became very difficult. Later on, however, there was a recovery; the imports increased somewhat, and we do not note here, as we did in the case of the other textile industries, any new and pronounced falling-off in 1917 and 1918 due to the renewal of the German submarine activity and the French shipping policy adopted in consequence thereof. In 1918 the imports reached 145,000 metric quintals, or approximately three-fourths of what they were in the year before the war.

The fact is that the silk industry had fewer ships at its disposal than the other textile industries. Before the war it had about

[1] *Ed. Note*: Metric quintal = 100 kilograms = 222·5 pounds.

20,000 tons per annum, as compared with nearly 300,000 tons for the wool industry and with more than 300,000 tons for the cotton industry. Thus the maintenance of the available tonnage at approximately the same level was less difficult for the silk industry than for the other textile industries. Furthermore, although raw silk is a very bulky material for its weight, and one which consequently requires more cargo space, at the same time it is a material of very great value, so that persons engaged in the transportation of it, whether French or Japanese, are always glad to accept it as a cargo because of the high freight rates which they can charge. It is necessary to take into account, finally, the fact that the Army Supply Service, and especially the Aeronautical Service, had need of ever-increasing quantities of floss-silk, so that the French merchant marine carried considerable quantities of this material by priority. From 1915 to 1918 the imports of floss-silk nearly doubled, increasing from 42,000 to 79,000 quintals, whereas the imports of raw silk increased but very little, namely, from 48,000 to 54,000 quintals.

As in the procurement of silk, so also in the manufacture of silk, the industry had serious obstacles to surmount. The chief difficulty was that created by the scarcity of workers, which in the first few months of the war left idle two-thirds of the looms and the majority of the spindles. Here again, however, the correct solution of the problem was discovered and applied, with the result that a notable recovery was made.

But the greatest danger that confronted the French silk industry lay in the marketing of its manufactured products. Silk being essentially a luxury product, what the French silk manufacturers had most to fear was abandonment by their old clientele, not only in France, but also in other countries—especially in the belligerent countries impoverished by war and forced to economize. This danger was increased by the fact that some of the allied countries, notably England, in conformity with a general policy of restriction rendered necessary by the war were destined to prohibit the importation of foreign merchandise deemed non-essential, especially silk articles.

In this connexion, however, it is necessary to remark that

not all of the manufactured products of the silk industry are luxury articles, and that for a long time before the war this industry had sought to democratize its production. It continued its efforts along this line in the first part of the war, and in so doing was aided by the great scarcity and high prices of the other textile products, so that silk came to be looked upon almost as an article of prime necessity, taking the place of wool, linen, &c. As already stated, moreover, considerable quantities of silk products, especially floss-silk, were required for military purposes, especially for the Aeronautical Service. Furthermore, the war, which was impoverishing the world in general, had the effect of greatly increasing, first in the neutral countries, and then in the belligerent countries, the incomes and purchasing power of certain persons who became the natural clients of the silk industry, especially as regards high-grade fabrics. With regard to the import prohibitions established in England, finally, it may be said that the suspension of this prohibition with respect to French silks was to become one of the chief aims, from the French standpoint, of the negotiations entered into in 1917—an aim which came to be fully realized by the Anglo-French agreement of August 24 of that year.

Likewise in the case of manufactured products of the silk industry the movement of the foreign trade shows considerable fluctuations. The value of the imports of silk thread and silk fabrics before and during the war are indicated by the following table:

VALUE OF IMPORTS OF SILK THREAD AND FABRICS INTO FRANCE IN 1913 AND 1915–18

	Millions of francs	
Year	*Thread*	*Fabrics*
1913	5	49
1915	1	23
1916	4	46
1917	19	58
1918	38	50

The increase was especially pronounced, as will be seen, in the case of silk thread, and it related almost entirely to floss-silk thread, which, owing to the loss of the schappe spinning

mills in the north could not be produced in quantities sufficient to supply the demand of the Army Supply Service. In the case of silk fabrics, unlike what we observed in the case of the manufactured products of the other textile industries, the war-time figures show no pronounced increase over the pre-war figure.

Of special interest in the case of the silk industry, however, are the figures corresponding to the exports. Before the war this industry was exporting approximately two-thirds of its output; that is to say, of some 600,000,000 francs' worth of merchandise produced it was shipping some 400,000,000 francs' worth to foreign countries. The following table indicates the value of the exports of silk thread and silk fabrics before and during the war:

VALUE OF EXPORTS OF SILK THREAD AND FABRICS FROM FRANCE IN 1913 AND 1915–18

	Millions of francs		
Year	*Thread*	*Fabrics*	*Total*
1913	24	386	410
1915	21	341	362
1916	33	514	547
1917	27	494	521
1918	17	498	515

Thus the total exports, after having fallen off somewhat in the first part of the war, recovered rapidly, and in 1916 attained an unprecedented maximum; and in 1917 and 1918, despite a slight decrease with respect to 1916, they were still greater than they were in the year before the war.

As regards the exports of silk fabrics to England, France's great foreign market, in the first few months of 1917 they underwent a considerable decrease with respect to 1916 under the influence of the English import prohibitions; but in the last few months of 1917, as well as in 1918, they recovered somewhat in consequence of the above-mentioned Anglo-French agreement of August 24, 1917, whereby French silks were given free access to the English market. The result was that the value of the exports to England alone, having amounted to 252,000,000 francs in 1916, increased to 281,000,000 francs in 1917, and again to 341,000,000 francs in 1918.

But if in place of these value figures, which are influenced by the rise of prices that took place during the war, we substitute the corresponding quantity figures, we find the situation less favourable with respect to the exports of silk; whereas before the war they ranged from 50,000 to 60,000 quintals, in the last two years of the war, on the other hand, they averaged only 40,000 quintals.

Thus the silk industry, while it maintained a greater power of resistance than the other textile industries during the war, was nevertheless put to a very severe test. Owing to the rise of prices, to be sure, the value of its exports, despite an actual decrease in the quantities, remained about the same. At the same time, however, the price of raw material also increased, and consequently the total amount paid for foreign purchases of raw silk and floss-silk. If we compute the total value of the imports and exports of silk products of all kinds, including raw silk, floss-silk, silk thread, and silk fabrics, we find that in 1913 the value of the foreign purchases amounted to 415,000,000 francs, and the value of the foreign sales to 589,000,000 francs, the value of the exports thus exceeding that of the imports by 174,000,000 francs. In 1918, on the other hand, the foreign purchases, under the influence of the intervening rise of prices, amounted to 774,000,000 francs, while the foreign sales amounted to 775,000,000 francs, the value of the exports thus exceeding that of the imports by only 1,000,000 francs. The difference between the excess value of the exports of 1913 and 1918, amounting to 173,000,000 francs, represents the loss to the French balance of trade as regards the silk industry.

VI. SUMMARY

Thus even in the case of the silk industry, the most favoured of the French textile industries during the war, the balance of trade shows a considerable loss with respect to the pre-war figures. But it was in the wool, cotton, and linen industries that the greatest losses, applying particularly to manufactured

products, were sustained, amounting, as they did, to nearly three billion francs.

But we have several times pointed out that the consumption of textile products by the French civil population, despite the decrease in exports and the enormous increase in imports, fell far below the normal. This was due to the fact that voluntary restrictions, and especially enforced restrictions resulting from the rise of prices, import prohibitions, transportation difficulties, &c., greatly reduced the number of purchases made for private accounts. The majority of the manufactured products received from abroad consisted of war materials, such as uniforms and military equipment for soldiers, steel, powder, rails, cars, camions, automobiles, wire, motors, material and parts for flying-machines, &c.

It would be a mistake to judge the private consumption of textile products in France solely on the basis of what was to be seen on the main streets of Paris and the other large cities; for it is likewise necessary to take into account what was to be seen in the smaller cities, as well as in the towns, villages, and rural districts. If one could have entered the houses occupied by the greater part of the French people, and compared the condition of their wardrobes and linen-closets as it was during the war with what it was before the war, one would have been surprised to find how little there was in them, how little of that which had been worn out and thrown away had been replaced.

But if the war left the French civil population without manufactured textile products, it also left the French textile industry without means of production, due to the incredible depredations committed by the enemy. Thus the replenishment of the wardrobes and linen-closets is not the task of to-day or to-morrow. The most immediate task is the reconstitution of the textile equipment, which alone will permit a re-establishment of the pre-war balance of trade. Despite the serious difficulties that are constantly arising, this work is being carried on with the utmost energy in the liberated regions, especially in the north, the principal centre of the French textile industry.

COLUMBIA UNIVERSITY LIBRARIES

This book is due on the date indicated below, or at the expiration of a definite period after the date of borrowing, as provided by the library rules or by special arrangement with the Librarian in charge.

DATE BORROWED	DATE DUE	DATE BORROWED	DATE DUE

END OF
TITLE